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SCHIEDEELLA ROMEROANA (ORCHIDACEAE,
SPIRANTHINAE), A NEW AND INTERESTING
SPECIES FROM MEXICO

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ABSTRACT

Schiedeella romeroana Szlach., *sp. nov.*, is newly described. It is distinguished by its lack of both rostellum and viscidium. The lip is distinctly divided into a rectangular hypochile with reduced basal auricles and a rounded epichile. It is compared with *S. valerioi* (Ames & Schweinf.) Szlach. & Scheviak, *S. amesiana* Garay and *S. llaveana* (Lindl.) Schlecht.

Key Words: *Schiedeella*, Orchidaceae, new species, Mexico

The genus *Schiedeella* Schlecht. embraces 10 species found in Mesoamerica—from the southern states of the U.S.A. to El Salvador and Costa Rica. The principal characteristics of these species are the structure of the flower segments and gynostemium. In the majority of these species the flowers are very small, with the lip set on a short, narrow claw, divided more or less distinctly into hypochile and epichile, with basal auricles of various size and shapes. The column foot is short and greatly reduced, the rostellum with a narrow base is linear-lanceolate, and after removing the semi-sheath-like viscidium it remains subulate with 1 or 3 indentations at the apex. Floral and cauline bracts are herbaceous (Szlachetko, 1992).

While conducting studies on the subtribe Spiranthinae for the Flora Mesoamericana, I found a new, distinctive plant among the herbarium material from the Mexican state of Oaxaca. It differs from those previously described in its total lack of both rostellum

and viscidium. The middle stigma lobe, which usually becomes the rostellum in orchids, is here membranous and transparent. Together with the terminal edges of the clinandrium, it stretches between the fairly stiff, resilient protruberances of the lateral stigma lobes. It does not thus constitute a barrier for the pollen mass, nor does it prevent autogamy. In this new species of *Schiedeella*, the pollinia protrude distinctly above the thin middle lobe of the stigma.

Schiedeella romeroana Szlach., *sp. nov.* (Figure 1). Species *Schiedeella llaveanae* et *S. valerioi* similis, sed ab omnibus congeneribus rostello et viscidio nullo iam diversa.

Roots 5, up to 4 cm long, about 1 cm in diameter, clustered, fleshy. Stem 3.5 dm tall, 4 mm in diameter at base and about 1 mm in diameter under inflorescence, delicate, erect, tinged reddish, sparsely glandular under and within inflorescence. Cauline bracts 9, herbaceous with hyaline margins, acute, the middle and upper shorter than internodes. Leaf single, petiolate; petiole about 4 cm long, narrow; blade 5 cm long, 2.5 cm wide, ovate-lanceolate, acute. Inflorescence 9 cm long, about 20-flowered, lax. Flowers horizontal, tiny. Floral bracts 6–7 mm long, ovate-lanceolate, acute, semi-transparent, herbaceous, with hyaline margins, 1-nerved. Ovary about 6 mm long, slightly twisted, sparsely glandular in the upper part. Dorsal sepal 5 mm long, 1 mm wide, oblong-lanceolate, obtuse, thin, semi-transparent, 1-nerved, sparsely glandular outside near the base. Lateral sepals 6 mm long, 1.3 mm wide, oblong, subobtuse, asymmetric, otherwise as the dorsal one. Petals 4.9 mm long, .6 mm wide, oblong-spathulate, obtuse, very thin, 1-nerved. Lip on short and narrow claw, divided into a hypochile and epichile; hypochile 4 mm long, 2.2 mm wide, rectangular, slightly thickened in the middle, the basal auricles rounded; epichile 2 mm long, 1.9 mm wide, rounded, minutely dentate, papillate, subobtuse. Gynostemium 3.5 mm long, slender, slightly arcuate, lacking rostellum and viscidium. Anther about 1 mm long, ovate-cordate. Pollinia with attenuate apices and rounded bases.

TYPE. Mexico. Oaxaca: km 6.3 from Ixtlan, on brecha N from km 5.8 on Natividad road, elev. 2100–2400 m. Bosque de pino y encino, con *Arbutus*. In shade, in bud, flower and unripe capsule.

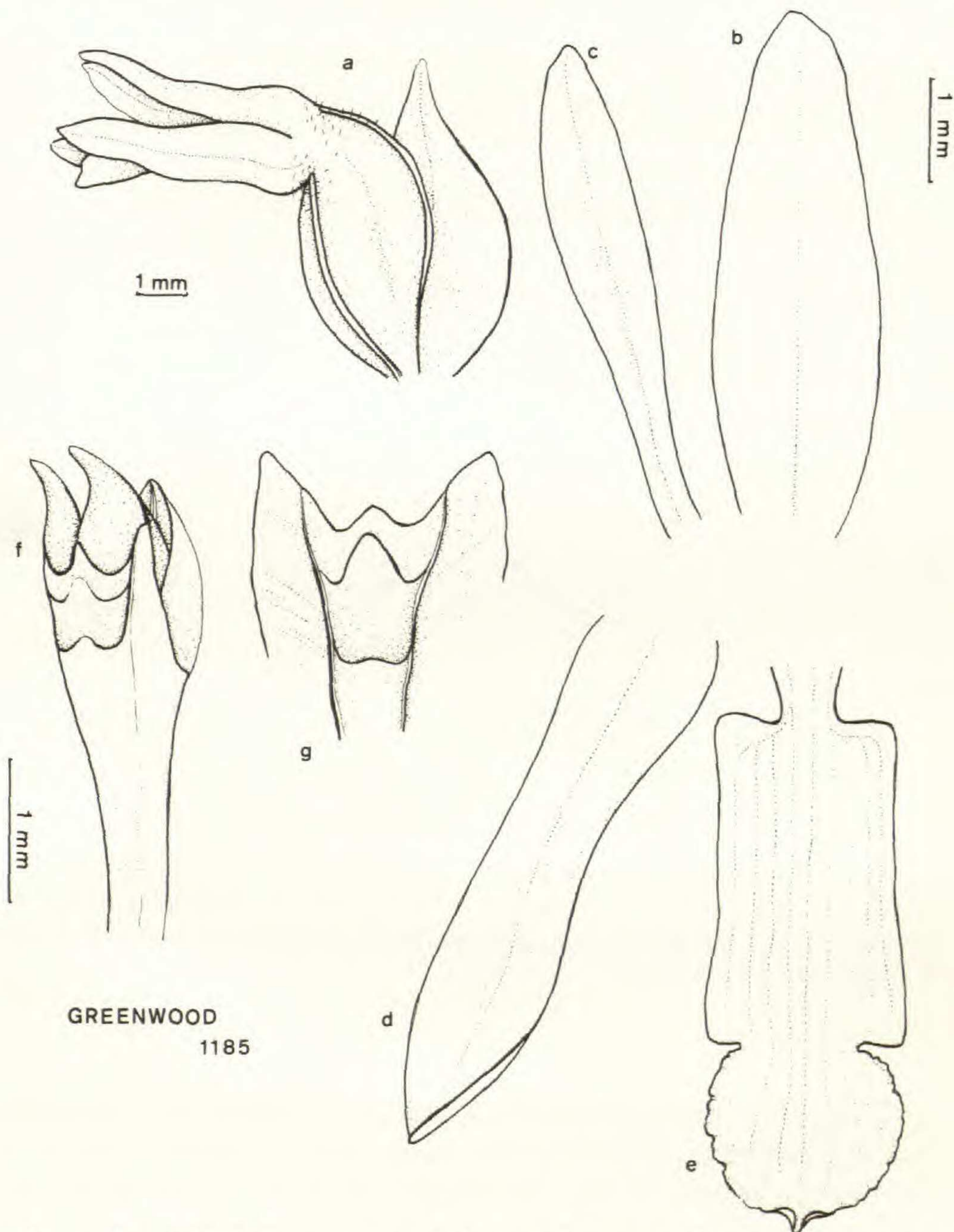


Figure 1. *Schiedeella romeroana* Szlach. a. flower and floral bract. b. dorsal sepal. c. petal. d. lateral sepal. e. lip. f. gynostemium. g. stigma.

Very few spikes seen, ca. 10, versus ca. 200 leaves in October 1983. 18 Mar 1984. *Greenwood 1185* (HOLOTYPE: AMO).

ETYMOLOGY. I dedicate this species to Dr. Gustavo A. Romero, Curator of the Oakes Ames Orchid Herbarium, Harvard University, in gratitude for his invaluable help in my work on the revision of the subtribe Spiranthinae.

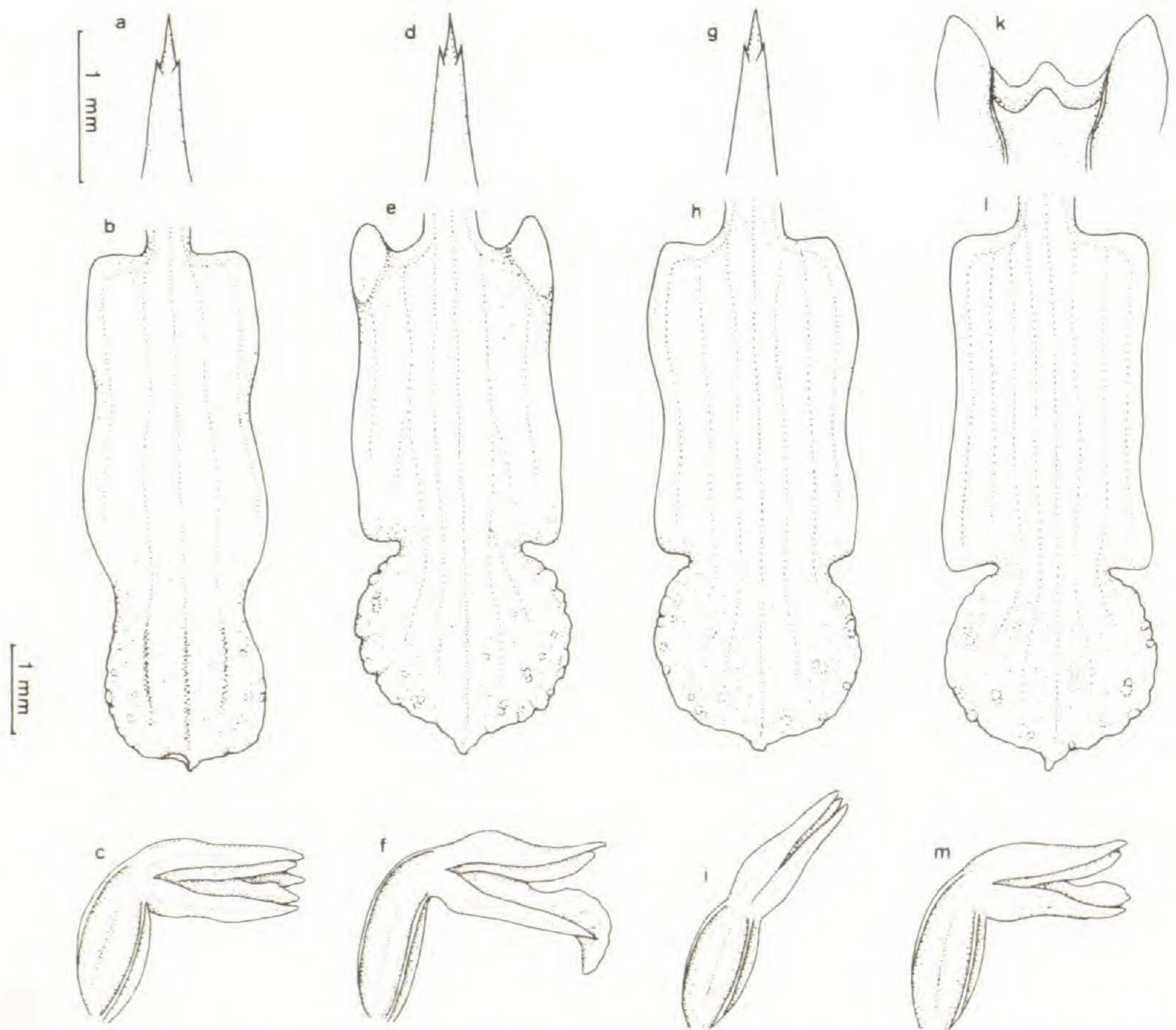


Figure 2. Comparison of the rostellum remnant (above), lip form (middle) and flower (below) between *Schiedeella valerioi* (Ames & Schweinf.) Szlach. & Sheviak (a-c), *S. llaveana* (Lindl.) Schlecht. (d-f), *S. amesiana* Garay (g-i) and *S. romeroana* Szlach. (k-m).

Schiedeella romeroana seems to be closely related to *S. llaveana* (Lindl.) Schlecht., *S. amesiana* Garay and *S. valerioi* (Ames & Schweinf.) Szlach. & Sheviak (Figure 2). It is similar in the lip form to the first species and to the last in the proportion of length of lip to remaining perianth segments. It has horizontal flowers instead of the erect flowers of *S. amesiana*.

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